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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,741	03/06/2002	Jun Miyokawa	219404US8	5255
22850	7590	10/28/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WONG, ERIC K	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,741

Applicant(s)

MIYOKAWA, JUN

Examiner

Eric Wong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/6/2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

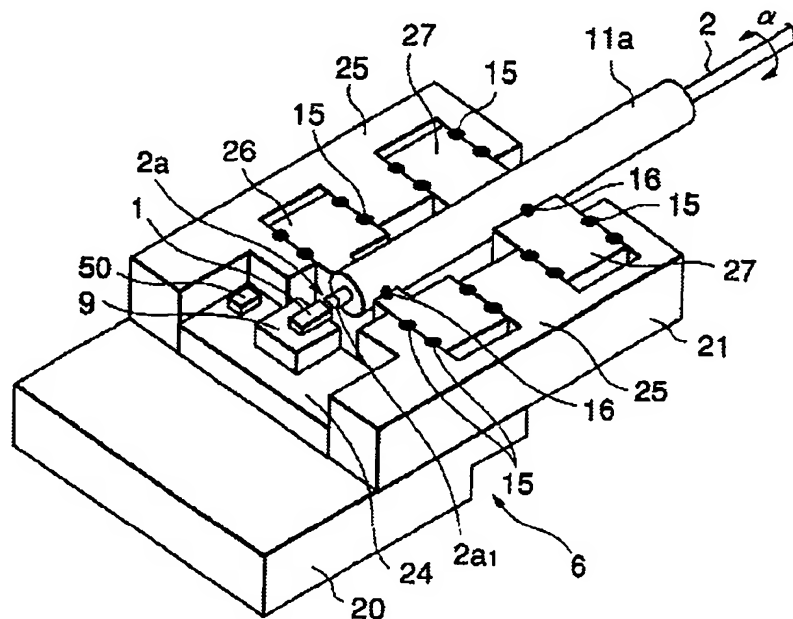
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Application Publication 2002/0003818 to Katayama et al. and further in view of United States Patent Number 6,190,056 to Kwon et al.

As to claims 1, 2, 3, 5, 6, 8, 9, 10, 11, and 20, Katayama discloses in figure 5A, a semiconductor laser module comprising:

**Reproduced from Reference Katayama et al.**



- A semiconductor laser configured to emit light (1);
- An optical fiber having a tip end portion opposing said semiconductor laser and formed in a lens shaped configuration so as to optically couple light emitted from said laser (2a);
  - An optical fiber supporting member configured to support said optical fiber (11a);
  - A first fixing block and a second fixing block portion positioned on opposite sides of a supporting member (26),
  - A first bridge portion (where 16 welds),
  - A second bridge portion (opposite 16), and
  - As to claim 4, a group of fixing members (26, 27) are present which hold a fiber ferrule in place,
  - As to claim 7, the first and second fixing members are non-integral as they need to be welded,
  - As to claim 12, the base includes a semiconductor laser-mounting member (9) and a fixing-member mounting member provided on the semiconductor laser mounting member,
  - As to claim 13, said semiconductor-laser mounting member and base are integrally formed as a single member (1, 9 and 24),
  - As to claim 14, the first fixing-member mounting member has a first recessed portion corresponding to a first fixing block portion and a second recessed portion corresponding to a second fixing block so as to fix the first and second by respective recessed portions (25),

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- As to claim 15, the fixing members have a joining member in the same plane (welds are in the same plane),
- As to claim 16, the fixing members have an upper surface arranged at a substantially same height as a center of propagation path of light emitted from said laser,
- As to claims 17 and 18, the material of the fixing member is one of Fe-Ni (Prior Art, Paragraph 8 and 9) and has the same thermal expansion coefficients,
- As to claim 19, joining portions are laser-welded (15, 16 and paragraph 86),  
But fails to explicitly disclose
- A supporting member-fitting portion having a channel into which said optical fiber supporting member is placed and supported and
- A fixing member being fixed with alignment in the axes as claimed in claims 21 and 22,

Kwon teaches in figure 3A a supporting member fitting portion having a channel with a groove or hole into which said optical fiber supporting member is placed. This supporting member fitting portion greatly reduces thermal expansion and contraction during welding, thus reducing optical misalignment (Column 2, lines 47-53).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the supporting member fitting portion of Kwon in the semiconductor laser module of Katayama et al. since Kwon's supporting member fitting portion greatly reduces thermal expansion and contraction during welding (column 2, lines 47-53).

3. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama as applied to claim 20, in view of Kwon above and further in view of Applicant's admitted prior art.

Katayama and Kwon disclose a semiconductor laser module with an optical axis, but fail to explicitly disclose an optical alignment method by performing the steps of optically coupling in an X, Y, and Z direction as claimed;

It is noted that an official alignment method by performing the steps of optically coupling in the X, Y and Z direction is very well known in this optical art. It is also noted that applicant mentioned in paragraphs 13-16 this method of alignment regarding the X, Y and Z directions. Thus, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the methods of alignment disclosed by applicant to optically align the supporting member of Kwon with Katayama to increase optical output with minimal losses.

#### ***Drawings***

4. Figures 9A and 9B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Wong whose telephone number is 703-305-4741. The examiner can normally be reached on Monday through Friday, 830AM - 430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 703-308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

EW

  
AKM ENAYET ULLAH  
PRIMARY EXAMINER